

CLAIMS

What is claimed is:

1. A hard disk interface device for industrial computers, characterized in that a mother-daughter interface circuit board is disposed on an interface frame at a rear end of a hard disk drive in an industrial computer, such
5 that if it is necessary to selectively change and expand the functions of said circuit board, only said daughter board is needed to change; and an electric cable retaining hook is disposed on said interface frame to prevent said electric cable from drooping due to its weight which results
10 an adverse affection to the quality of signal connections.
2. The hard disk interface device for industrial computers of claim 1, wherein said hard disk drive interface frame comprises a plurality of penetrating holes thereon, a retaining board and a retaining hook are disposed at a back side of said interface frame; and said mother-daughter
15 circuit board comprises an interface motherboard and a daughterboard, and said interface motherboard is disposed adjacent to a surface of said hard disk drive and has a hard disk drive connector for directly connecting said hard disk drive to said interface motherboard; a power supply connector, a signal connector, and related connecting terminal are
20 disposed on the other side of said interface motherboard, and said power supply connector, signal connector and related connecting terminals are extended from said plurality of penetrating holes of said hard disk drive interface frame to said back side of said hard disk drive interface frame, and said daughterboard is mounted on said retaining board disposed on
25 the back side of said hard disk drive interface frame, and a symmetric signal connector is disposed on a side of said daughterboard for

connecting to said signal connector disposed on said interface motherboard and a 4-channel multilane connector is mounted onto a parallel side of said daughterboard for connecting a 4-channel infini-band cable assemble at an end of said electric cable, so that all hard disk drives of said interface motherboard and the signal and function of said daughterboard are connected to a control center of said industrial computer.

3. The hard disk interface device for industrial computers of claim 1, wherein said retaining hook disposed on the back side of said hard disk drive interface frame hangs said electric cable parallel to said hard disk drive interface frame to enhance the stability of signal transmissions, and thus preventing said electric cable from occupying too much space and preventing said electric cable from drooping due to its weight which results an adverse affection to signal connections.

4. The hard disk interface device for industrial computers of claim 1, wherein said 4-channel multilane connector disposed on said daughterboard and said 4-channel infini-band cable assembly disposed at an end of said electric cable are not limited to such, but any equivalent connector can be used.

5. The hard disk interface device for industrial computers of claim 1, wherein said hard disk drive interface frame comprises a plurality of interface motherboards, and said daughterboard, retaining board, and retaining hook are installed according to the quantity of said motherboards to achieve the installation of a plurality of mother-daughter interface circuit boards.